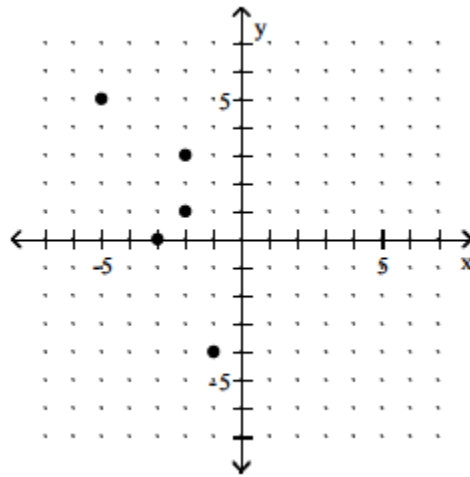


PRACTICE TEST 3 - CHAPTER 3, 4, 8

Beginning and Intermediate Algebra by Elayn Martin-Gay, 5th edition

****Reminder: Graphing Calculators will NOT be allowed on MATH 0362 tests****

1. Determine whether the graph is the graph of a function.



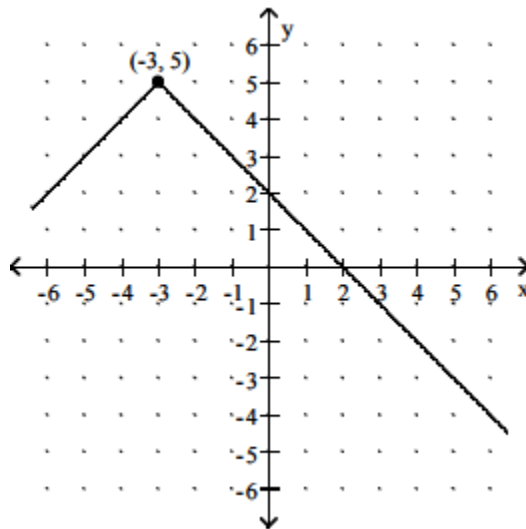
2. Given the function: $h(x) = x^2 + 2x - 3$, find the following function values:

a) $h(-4)$

b) $h(0)$

c) $h(3)$

3. Find the domain and range of the function graphed.



Determine whether the given ordered pair is a solution of the following linear system of equations.

$$\begin{cases} 2x - 3y = 8 \\ x - 2y = 6 \end{cases}$$

4. $(-2, -4)$

5. $(7, 2)$

Solve the following systems of linear equations by using the graphing method.

6.

$$\begin{cases} y - x = 5 \\ 2x - 2y = -10 \end{cases}$$

7.

$$\begin{cases} x + y = 8 \\ x - y = -6 \end{cases}$$

8.

$$\begin{cases} x + y = 2 \\ x + y = -4 \end{cases}$$

Solve the following system of equations by using the substitution method.

9.

$$\begin{cases} 3x + 2y = 22 \\ x = 5y - 4 \end{cases}$$

10.

$$\begin{cases} 5x + 15y = 35 \\ 4x + 12y = 36 \end{cases}$$

Solve the following system of equations by using the addition method.

11.

$$\begin{cases} 2x + y = 4 \\ 2x + 3y = 0 \end{cases}$$

12.

$$\begin{cases} 4x + 5y = 2 \\ 3x - y = 11 \end{cases}$$

13.

$$\begin{cases} 3x - 4y = 6 \\ 12x - 16y = 24 \end{cases}$$

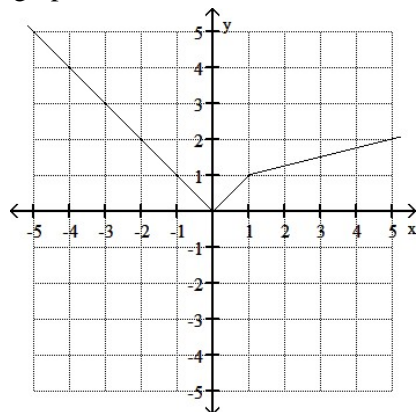
14. Graph the linear function: $f(x) = \frac{2}{3}x - 1$

15. Find an equation of the line with slope $m = \frac{1}{3}$ and containing the point $(-3, 6)$. Write the equation using functional notation.

16. Find the equation of the line containing the points $(1, 3)$ and $(3, 2)$. Write the equation using functional notation.

17. For a certain function $f(-4) = -3$, write the corresponding ordered pair.

18. Use the graph to find the indicated function value for $y = f(x)$. Find $f(-4)$



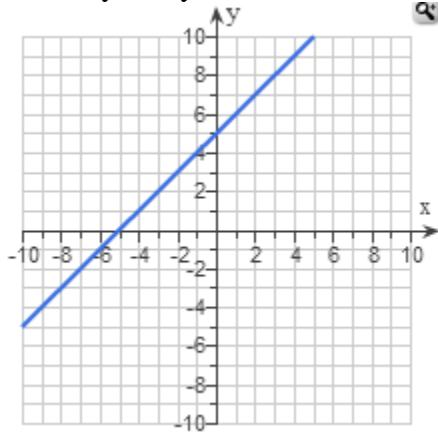
19. If y varies directly as x , find the constant of variation and the direct variation equation if $y = 6$ when $x = 18$.

20. If y varies inversely as x , find the constant of variation and the inverse variation equation if $y = 8$ when $x = 7$.

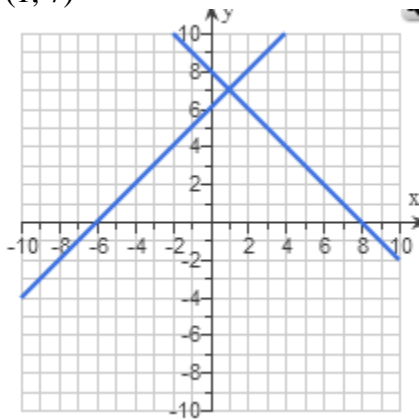
21. The weight of a synthetic ball varies directly with the cube of its radius. A ball with a radius of 3 inches weighs 5.4 pounds. Find the weight of a ball of the same material with a 4 inch radius.

Practice Test 3 Chapter 3, 4, 8 Answers

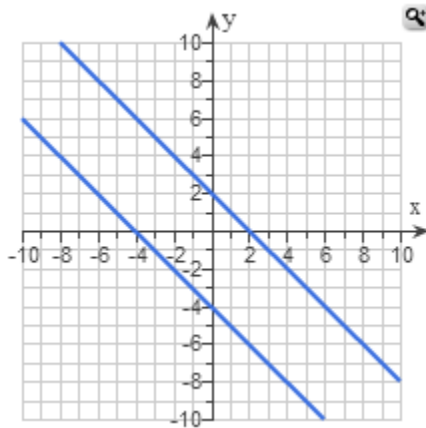
1. No
2. $(-4, 5)$, $(0, -3)$, $(3, 12)$
3. $(-\infty, \infty)$ and $(-\infty, 5]$
4. Yes
5. No
6. Infinitely many solutions



7. $(1, 7)$



8. No Solution



9. $(6, 2)$

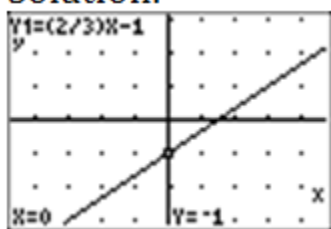
10. No Solution

11. $(3, -2)$

12. $(3, -2)$

13. Infinitely many solutions

14.



15. $f(x) = \frac{1}{3}x + 7$

16. $f(x) = -\frac{1}{2}x + \frac{7}{2}$

17. $(-4, -3)$

18. 4

19. $k = \frac{1}{3}, y = \frac{1}{3}x$

20. $k = 56, y = \frac{56}{x}$

21. 12.8 pounds